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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,061

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Raanan Ben-Horin

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03/20/2009

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EXAMINER

ANDERSON, DENISE R

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1797

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03/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,061	Applicant(s) BEN-HORIN, RAANAN	
	Examiner Denise R. Anderson	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recited trough must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1 and 3-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites "upon threading together, the split ring is forced away from the planar radial wall and attracted towards the abutment ring distal from the planar radial wall." No support can be found for this limitation in the specification, the original claims, or the drawings. The examiner will interpret this to mean "upon threading together, the ring (the recited split ring) becomes attracted towards the fixed member (the recited abutment ring) and thus self-tightened by frictionally clamping within the cone-shaped trough (the recited seat member)" as recited in the specification at ¶ 7, lines 21-23.

6. Claims 1 and 3-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites "to initially force the split ring against the planar radial wall." No support can be found for this limitation in the specification, the original claims, or the drawings.

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The examiner will interpret this to mean that the split ring is located adjacent the planar radial wall as shown in applicant's Figure 2.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1 and 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The original claim 1 recited "and the seat member (200) is formed with a circular convergent cone shaped trough (200b) defined by a circular rim (200a) and a planar radial wall (200c)." Amended claim 1 now recites "and the seat member is formed with a circular convergent cone shaped trough defined by a circular rim, a convergent cone-shaped wall, and a planar radial wall." The original seat member (200) is now equivalent to trough whereas before, the trough was a subassembly of the seat member. Applicant needs to amend the claims to remove the confusion. One suggestion is to recite "seat member" in place of "trough" to be consistent within the claims and with the specification. In the patentability analysis below, the trough will now be interpreted as the seat member.

Claim Rejections - 35 USC § 103

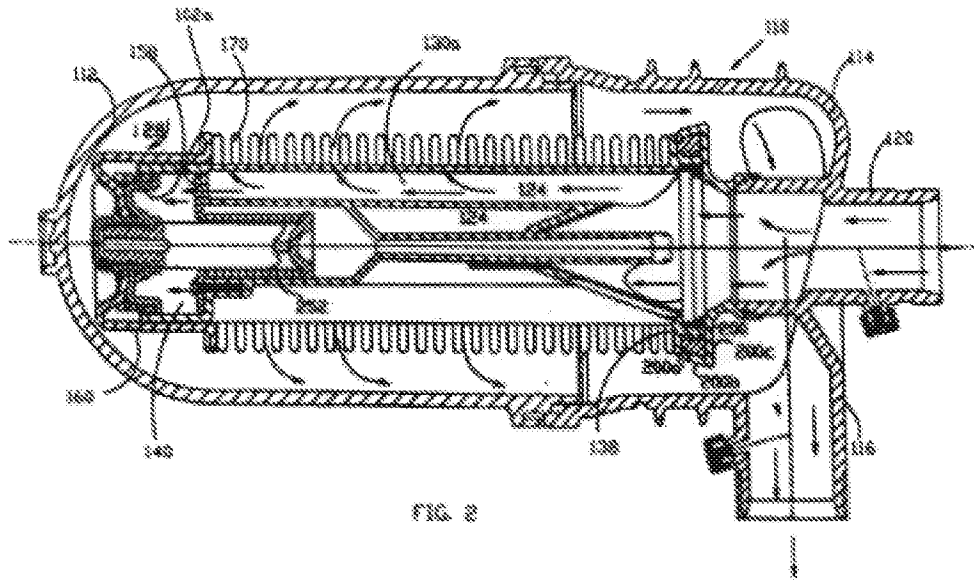
9. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadan et al. (US Patent No. 6,398,037 B1), in view of Clark et al. (US Patent No. 3,515,415).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sadan et al. (US Patent No. 6,398,037 B1), in view of Clark et al. (US Patent No. 3,515,415) as applied to claim 5 above, and further in view of Orberg et al. (Erik Orberg et al., "26th Edition Machinery's Handbook," pub. Industrial Press Inc., New York, 2000, of particular relevance is the example shown, starting on page 300).

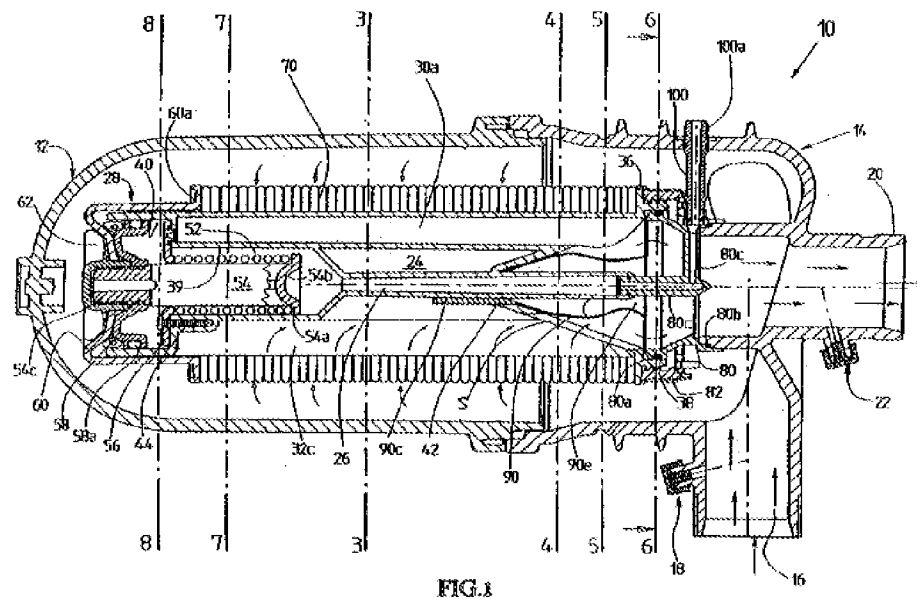
11. Applicant's Figure 2 is compared to the Sadan et al.'s Figure 1. A table follows, keying applicant's claimed structure to that of the prior art. After that, claim 1 appears in italics with the keyed structure underlined. As will be seen, there are two "wherein" clauses at the end of claim 1 that encompasses one limitation that is being argued. Sadan et al. discloses the claimed invention except that the split ring and the seat member are integrated, as opposed to separable, as recited. Clark et al. teaches that the split ring and seat member are separable.

12. The patentability analysis will begin with a comparison of applicant's Figure 2 to that of Sadan et al.'s Figure 1.

Applicant's Figure 2



Sadan et al.'s Figure 1



A table appears below, keying applicant's claimed structure to that of Sadan et al.

<i>TABLE 1: COMPARING RECITED STRUCTURE TO PRIOR ART.</i>		
<i>Recited Structure</i>	<i>Recited Structure Support</i>	<i>Sadan et al. Structure</i>
Filtering device	Filter device 10 in Fig. 1. Ref. no. 110 in Fig. 2.	Filter device 10 in Fig. 1.
Housing	Housing member 114 in Fig. 2.	Housing member 14 in Fig. 1.
Inlet port	Ref. no. 120 in Fig. 2.	Port 20 in Fig. 1.
Outlet port	Ref. no. 116 in Fig. 2	Port 16 in Fig. 1.
Core member	Core member 124 in Fig. 2.	Core member 24 in Fig. 1.
Abutment ring	Ring 138 in Fig. 2.	"[A] fixed element backing flange 36, combined with mounting screw-threaded ring 38," col. 3, lines 18-19.
Filter member	Filtering disks battery 170 in Fig. 2.	Filer disks battery 70 in Fig. 1.
Piston assembly	Piston assembly 28 in Fig. 1. Ref. no. 128 in Fig. 2.	Piston system assembly 28 in Fig. 1.
Piston	Piston 158 in Fig. 2.	Piston 58 in Fig. 1.
Displaceable member	Spring 252 in Fig. 2.	Spring 52 in Fig. 1.
Assembly		
Seat member=Trough	Seat member 200 in Fig. 2.	Top of mounting fitting 80 and ring 82 in Fig. 1.
Circular rim	Circular rim 200a in Fig. 2.	Circular rim at bottom of ring 82 in Fig. 1.
Cone-shaped wall	Cone-shaped wall 200b in Fig. 2.	Cylinder-shaped wall of ring 82 in Fig. 1.
Radial wall	Radial wall 200c in Fig. 2.	Radial wall at top of ring 82 in Fig. 1.
Split ring	Ring 202 in Fig. 2.	Threaded portion of ring 82 in Fig. 1.

Claim 1 appears in italics below with the keyed structure underlined.

Claim 1. (Currently Amended) A liquid filtering device, particularly for irrigation water installations comprising:

a housing with an inlet port and an outlet port;

a core member centrally mounted within the housing comprising at one axial end

thereof an abutment ring associated with a male screw-thread for mounting the

core member to the housing next to and in communication with the inlet port;

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a discs-type filter member supported by the core-member so that water flowing from the inlet port enters the filter member in a radial direction, and is discharged through the outlet port, and vice-versa during reversed, filter flushing flow cycles; a piston assembly mounted to the core member comprising a piston and a displaceable member coupled to the piston and abutting against the filter member at the other axial side thereof; and

wherein an assembly for the mounting of the core member comprises a seat member and a female screw-threaded split ring matching the male screw-thread; and the seat member is formed with a circular convergent cone shaped trough defined by a circular rim, a convergent cone-shaped wall, and a planar radial wall, the seat member encompassing the split ring and fixedly mounted to the housing, the arrangement being such that upon threading together, the split ring is forced away from the planar radial wall and attracted towards the abutment ring distal from the planar radial wall, and the outer surface of the split ring is beveled by a same angle as the cone-shaped wall and thus becomes self-tightened against the cone-shaped wall of the trough (interpreted as the seat member),

wherein said trough (interpreted as the seat member) is open at at-least one side thereof allowing the split ring to be inserted therein by elastically squeezing same into a smaller diameter to initially force the split ring against the planar radial wall.

13. Sadan et al. discloses “liquid filters, particularly related for water irrigation systems.”

Sadan et al., col. 1, lines 5-6. As can be seen from the above figures and table, applicant's

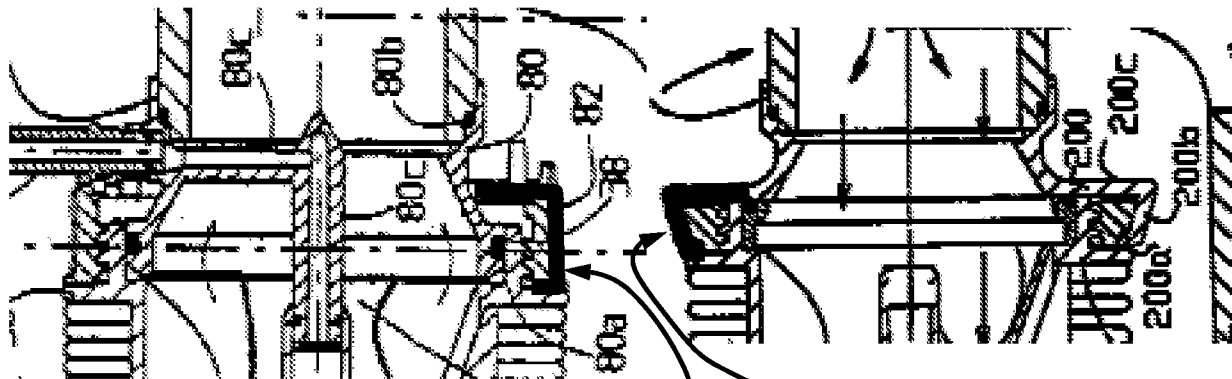
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structure is analogous to that of Sadan et al. with one difference. Applicant's split ring and seat member are separable and Sadan et al.'s split ring and seat member are integrated, as shown in the figures below. Also shown below is the separable split ring (nut body portion 3 and ring portion 4) and seat member (rim 2 and collar 6) taught by the secondary reference, Clark et al. And finally, a schematic is provided to illustrate the location of the seat member's cone-shaped wall, radial wall, and circular rim, whether the seat member is applicant's or the prior art's.

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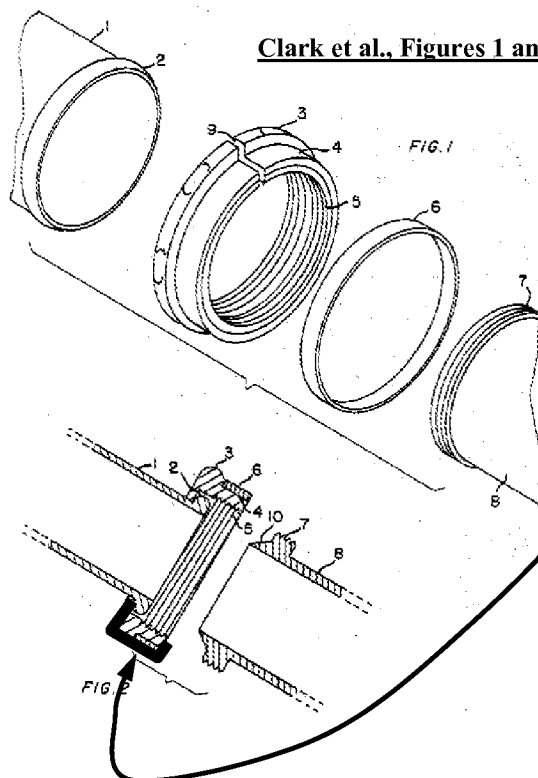
Sadan et al. Figure 1

Applicant Figure 2



Seat member
With integral split ring
With separable split ring

Clark et al., Figures 1 and 2



Seat Member Terminology

Radial wall
Cone-shape Wall
Circular rim

14. To summarize the claim 1 patentability analysis, Sadan et al. discloses the claimed invention except that the split ring and seat member are integrated, as opposed to separable.

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Clark et al. teaches the separable split ring and seat member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the Sadan et al. split ring and seat member separable as taught by Clark et al., since Clark et al. states at Column 1, lines 32-44, that such a modification provides a way to join two pipe-like structures, like the recited inlet port and filter member of claim 1.

15. Sadan et al., in view of Clark et al., discloses the claimed invention except that the cone-shaped wall on the seat member is perpendicular to form a cylindrical wall instead of slanted slightly inwards to make the recited cone-shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the Sadan et al. cone-shaped wall on the seat member slant in slightly as opposed to making the wall perpendicular since the two designs are equivalent. In summary then, Sadan et al., in view of Clark et al., discloses or suggests all claim 1 limitations.

16. A second claim 1 rejection can also be made. Sadan et al. discloses the claimed invention except that the split ring and the seat member are integral and applicant makes them separable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the split ring and seat member separable, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

17. One final note. Below, applicant argues each of the newly amended limitations except for one. The examiner will address that limitation here. Claim 1 recites:

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wherein said trough (interpreted as the seat member) is open at at-least one side thereof allowing the split ring to be inserted therein by elastically squeezing same into a smaller diameter to initially force the split ring against the planar radial wall.

The new limitation is “to initially force the split ring against the planar radial wall.” This limitation was one which caused claim 1 to be rejected under 112, first paragraph, for new matter, since there was no support for it in the specification, original claims, or drawings. As was stated in that analysis, the examiner is interpreting this limitation to mean that the split ring is located adjacent the planar radial wall as shown in applicant's Figure 2. As such, the figures shown on page 10 of this office action illustrate that both Sadan et al. and Clark et al. disclose the split ring adjacent the radial wall.

18. In summary, Sadan et al., in view of Clark et al., discloses or suggests all claim 1 limitations.

19. With regards to dependent claims 3-5, the claims appear below in italics and the prior art and examiner's comments are in normal font.

Claim 3. (Previously Presented) The device as claimed in claim 1 wherein the said trough (interpreted as the seat member) is integrally formed with a fitting communicating the core member with the inlet port of the filter member.

Sadan et al., in view of Clark et al., discloses or suggests all claim 1 limitations and, in Figure 10, teaches that the inlet port 20 communicates with the core member (Figure 1, core member 24) through a fitting.

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Claim 4 (Previously Presented): The device as claimed in claim 3, wherein a stop is provided within the trough (interpreted as the seat member) for avoiding free rotation of the split ring.

Sadan et al., in view of Clark et al., discloses or suggests all claim 3 limitations. In Figure 1, Clark et al. further teaches a stop to avoid the free rotation of the split ring in the form of a “collar 6.” The “collar 6” slides over the “ring portion 4” and is “held there by friction.” “Thereafter, threads 7 and 5 are engaged in the usual manner. Collar 6 now holds the nut [applicant’s split ring] in a fixed circular configuration.” Clark et al., Column 2, lines 23-27. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included a stop in the Sadan et al. device, as taught by Clark et al., since Clark et al. states at Column 2, lines 26-27 that such a modification would “hold the nut (applicant’s split ring) in a fixed circular configuration,” i.e. avoid the free rotation of the split ring. In summary, Sadan et al., in view of Clark et al., discloses or suggests all claim 4 limitations.

Claim 5 (Previously Presented): The device as claimed in claim 1, wherein the piston assembly is provided with means for limiting the progress amount of the piston.

Sadan et al., in view of Clark et al., discloses or suggests all claim 1 limitations and further teaches a means for limiting the progress amount of the piston in the form of a spring 52 in Figure 1.

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20. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sadan et al. (US Patent No. 6,398,037 B1), in view of Clark et al. (US Patent No. 3,515,415) as applied to claim 5 above, and further in view of Orberg et al. (Erik Orberg et al., "26th Edition Machinery's Handbook," pub. Industrial Press Inc., New York, 2000, of particular relevance is the example shown, starting on page 300). The claim appears below in italics with the prior art and examiner's comments in normal font.

Claim 6 (Currently Amended): The device as claimed in claim 5, wherein said means comprise a coil spring, the number and size of the coils being designed so as to limit the stroke of the piston following a predetermined compression thereof.

Sadan et al., in view of Clark, discloses or suggests all claim 5 limitations. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the spring to limit the stroke of the piston since it was known in the art how to design springs to compress a given length when under a given load. Orberg et al. provides such an example, starting on page 300. The spring is to compress from 2-1/2 inches to 1-1/4 inches under a 36-pound load. The number and size of coils in the spring is determined.

Response to Arguments

21. Applicant's arguments filed January 2, 2009 have been fully considered but they are not persuasive.

22. Applicant's arguments regarding claim 1 are listed below with the examiner's response following each argument.

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- a. Applicant argues, "[R]ing 82 of Sadan is a complete and whole ring, not a split ring as in Claim 1" and this is important because "a split ring operates completely different from a ring that is not split." Applicant's Remarks, p. 5, lines 4-6.

The examiner responds as in the above patentability analysis. Sadan et al. discloses the claimed invention except that the split ring and seat member are integrated, as opposed to separable. Clark et al. teaches the separable split ring and seat member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the Sadan et al. split ring and seat member separable as taught by Clark et al., since Clark et al. states at Column 1, lines 32-44, that such a modification provides a way to join two pipe-like structures, like the recited inlet port and filter member of claim 1.

A second argument can also be made. Sadan et al. discloses the claimed invention except that the split ring and the seat member are integral and applicant makes them separable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the split ring and seat member separable, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

- b. Applicant argues that neither "Clark or Sadan teaches or suggests a split ring having an outer surface that is beveled by the same angle as the cone-shaped wall (200b)." Applicant's Remarks, p. 5, lines 21-22.

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The examiner responds as in the above patentability analysis. Both Clark et al. and Sadan et al. disclose a split ring having an outer surface that is beveled by the same angle as the cone-shaped wall (200b). Because the Sadan et al. split ring is integral with the cone-shaped wall, the angle between the two is the same, as recited. As shown in the figures that appear on page 10 of this office action, Clark et al. discloses a split ring (at nut body 3) with the same angle as the cone-shaped wall (collar 6).

As was also stated in the above patentability analysis, Sadan et al., in view of Clark et al., discloses the claimed invention except that the cone-shaped wall on the seat member is perpendicular to form a cylindrical wall instead of slanted slightly inwards to make the recited cone-shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the Sadan et al. cone-shaped wall on the seat member slant in slightly as opposed to making the wall perpendicular since the two designs are equivalent.

- c. Applicant argues, "Sadan neither discloses the female screw-threaded split ring 202 nor the circular convergent cone-shaped trough defined by the circular rim 200a, convergent cone-shaped wall 200b, and planar radial wall 200c of Claim 1." Applicant's Remarks, p. 5, lines 25-27.

The examiner responds as in the above patentability analysis with a table. The table below illustrates that Sadan et al. discloses all of these.

TABLE 1: COMPARING RECITED STRUCTURE TO PRIOR ART.		
<i>Recited Structure</i>	<i>Recited Structure Support</i>	<i>Sadan et al. Structure</i>
Filtering device	Filter device 10 in Fig. 1. Ref. no. 110 in Fig. 2.	Filter device 10 in Fig. 1.
Housing	Housing member 114 in Fig. 2.	Housing member 14 in Fig. 1.
Inlet port	Ref. no. 120 in Fig. 2.	Port 20 in Fig. 1.
Outlet port	Ref. no. 116 in Fig. 2	Port 16 in Fig. 1.
Core member	Core member 124 in Fig. 2.	Core member 24 in Fig. 1.
Abutment ring	Ring 138 in Fig. 2.	"[A] fixed element backing flange 36, combined with mounting screw-threaded ring 38," col. 3, lines 18-19.
Filter member	Filtering disks battery 170 in Fig. 2.	Filer disks battery 70 in Fig. 1.
Piston assembly	Piston assembly 28 in Fig. 1. Ref. no. 128 in Fig. 2.	Piston system assembly 28 in Fig. 1.
Piston	Piston 158 in Fig. 2.	Piston 58 in Fig. 1.
Displaceable member	Spring 252 in Fig. 2.	Spring 52 in Fig. 1.
Assembly		
Seat member=Trough	Seat member 200 in Fig. 2.	Top of mounting fitting 80 and ring 82 in Fig. 1.
Circular rim	Circular rim 200a in Fig. 2.	Circular rim at bottom of ring 82 in Fig. 1.
Cone-shaped wall	Cone-shaped wall 200b in Fig. 2.	Cylinder-shaped wall of ring 82 in Fig. 1.
Radial wall	Radial wall 200c in Fig. 2.	Radial wall at top of ring 82 in Fig. 1.
Split ring	Ring 202 in Fig. 2.	Threaded portion of ring 82 in Fig. 1.

- d. Applicant argues, that Sadan et al. and Clark et al. do not disclose the claim 1 recitation, "upon threading together, the split ring is forced away from the planar radial wall and attracted towards the abutment ring." Applicant's Remarks, p. 5, line 30 to p. 6, line 2.

The examiner responds as in the patentability analysis above. Claim 1 was rejected under U.S.C. 112, first paragraph, because this limitation presented new matter. The examiner is interpreting this limitation to mean, "[U]pon threading together, the ring (the recited split ring) becomes attracted towards the fixed member (the recited abutment ring) and thus self-tightened by frictionally clamping within the

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cone-shaped trough (the recited seat member)" as recited in the specification at ¶ 7, lines 21-23. In this case, both Sadan et al. and Clark et al. teach that threading the split ring does attract the split ring towards the abutment ring and the split ring tightens against the seat member. See the figures on page 10 of this office action.

The table below provides the analogous structure between applicant, Sadan et al., and Clark et al.

TABLE 2: COMPARING RECITED STRUCTURE TO PRIOR ART		
<i>Recited Structure</i>	<i>Sadan et al. Structure</i>	<i>Clark et al. Teaching</i>
Split ring – Fig. 2, ring 202.	Fig. 1, threaded portion of ring 82.	Figs. 1 & 2, nut body portion 3 and ring portion 4.
Seat member – Fig. 2, seat member 200.	Fig. 1, ring 82 minus the threaded portion.	Figs. 1 & 2, rim 2 and collar 6.
Abutment ring – Fig. 2, ring 138.	Fig. 1, “[A] fixed element backing flange 36, combined with mounting screw-threaded ring 38,” col. 3, lines 18-19.	Fig. 2, bevel 10.

- e. Applicant argues, that because of all of the above points and, further, the new limitation, "the split ring is forced away from the planar radial wall 200c and attracted toward the abutment ring 138," that “such modifications are something more than constructing a formally integral structure in various elements beyond a routine skill in the art.”

Given the above patentability analysis and responses to applicant’s arguments, the examiner maintains that Sadan et al. discloses the claimed invention except that the split ring and the seat member are integral and applicant makes them separable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the split ring and seat member separable, since it has

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been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

As stated in the above patentability analysis, there is an alternative argument. Sadan et al. discloses the claimed invention except that the split ring and seat member are integrated, as opposed to separable. Clark et al. teaches the separable split ring and seat member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the Sadan et al. split ring and seat member separable as taught by Clark et al., since Clark et al. states at Column 1, lines 32-44, that such a modification provides a way to join two pipe-like structures, like the recited inlet port and filter member of claim 1.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

24. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise R. Anderson whose telephone number is (571)270-3166. The examiner can normally be reached on Monday through Thursday, from 8:00 am to 6:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter D. Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

26. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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